

Work Order ID 54951



Page 1

January 5, 2010 10:43:20 AM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00



Cast Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: *[Signature]*

Date: 10-1-05 Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2750

Rev F

100

0.00



DOCUMENT CONTROL

DC

0.00

Memo

Document Control

Photocopy blue file and type labels per PPP D350-636-011 CHG 005

810601/26

[Signature] MF 10/01/25

54951

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951



Page 2

January 5, 2010 10:43:20 AM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00



Cus Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1- Mark cut line on aft end of D2600-3-Bent using Jig DT 8150. Cut to length as per Dwg D2750. Deburr end

2-Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details).Drill using drill Jig DT8150 & DT8863.

3- Mark fwd end for cutting using Drill Jig DT 8150 & DT8863 and cut as per dwg D2750.

4- drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500"

5- locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting

6-Open up holes for Detail B to 0.375" (4 holes per side)and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750 .Open up holes for ground handling and detail C to 0.500" (8 holes per side)

7-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

8-Open up holes of Detail A to 0.297" (total of 2 holes per side)

9-Weld D2744 Cap as per Dwg D2750 and QSI 004.Fill grooves in bend left from bending as per QSI 004

A/R Aluminum Rod

M112860

BE 10/01/07

10-Grind welds flush as per Dwg D2750

BE 10/01/07

4 10/1/6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951

January 5, 2010 10:43:20 AM



Page 3

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00



East Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

12- Scribe batch# inside per dwg D2750

BE 10/01/07

120

QC10- Inspect visual per QSI004- ground welds

0.00



QC

Memo

0.00

⇒ S 10/01/07



Quality Control

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

⇒ S 10/01/07



Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00



2 NB 10-01-07

Hand Finishing

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951

Page 4

January 5, 2010 10:43:20 AM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

QC3- Inspect Part Finish

0.00

10-1-7



QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951



Page 5

January 5, 2010 10:43:20 AM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

0.00



Skidtubes

0.00

Skidtubes

Memo

1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per side)
as per dwg D2750.

2-Open up holes of Detail B to 0.750" (total of 4 holes per side)
as per dwg D2750.

3- Open float hole to 0.500" (4 per side)

4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750
(welding instructions on sheet 8)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R ☐ ☐ ☐ Sikaflex-291

batch: 112391

exp. date: 2010/02

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004
(welding instructions on sheet 8)

A/R ☐ ☐ ☐ Aluminum Rod

batch: m112860

9-Grind welds flush as per Dwg D2750

10-Spot face ground handling holes section (total of 4 places perside) as per
dwg D2750

MS
10-01-07

MS
10-01-07

BE 10-01-08

Am 10.01.09



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951

January 5, 2010 10:43:20 AM

Page 6

Item ID: D350-636-011

Accept

Setup Start

Revision ID:

Stop

Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

11- At section AJ-AJ drill out x-bolt spacer to 0.404"
12-Deburr holes

DM 10.01.09

170

QC10- Inspect visual per QS1004- ground welds

0.00



QC

Memo

0.00

=> 8106011

KC

Quality Control

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

=> 8106011

KC

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951

January 5, 2010 10:43:21 AM



Page 7

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

190

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

10-01-18

(X) 0

Hand Finishing

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

10-01-16

(X) 0

Powder Coating

START TIME: 9:00 AM
OVEN TEMPERATURE: 320°F
FINISH TIME: 9:30 AM

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

BR 10-01-14

(X) 0

Quality Control

Inspect for foreign object per QSI 024

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951

Page 8

January 5, 2010 10:43:21 AM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220		0.00							
	HandFinishing								
HandFinish	Memo	0.00							
Hand Finishing	1- Install inserts as per Dwg D2750								
230		0.00							
	HandFinishing								
HandFinish	Memo	0.00							
Hand Finishing	1-Inspect for Foreign Objects								
	2-Spray inside of tube with "LPS-3" batch: <u>u/a</u>								
	3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750 SIKA FLEX 241 BATCH: <u>112345</u> EXP DATE: <u>10/08</u>								
	4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube A/R 55-o'ring lube batch: _____								
	5-Coat all exposed fasteners with "LPS Procyon" batch: <u>104223</u>								

Bl 10-01-20

Bl 10-01-20 ①

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951

Page 9

January 5, 2010 10:43:21 AM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

=> 8/10/10/20



Quality Control

250

Pick Kit

0.00



Packaging

Memo

0.00

10-1-22 (10) SP

Packaging

260

QC4- 100% Inspect kits for completeness

0.00



QC

Memo

0.00

=> 8/10/10/20



Quality Control

*****ensure antiseize is on AN8C21A bolts*****

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 54951

Page 10

January 5, 2010 10:43:21 AM

Item ID: D350-636-011

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube LH

Start Date: 05/01/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 18/01/2010 Req'd Qty: 1.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

270



Packaging

Packaging

0.00

Memo

0.00

Package as per PPP D350-636-011

New. H

10/01/26

280



QC

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

Quality Control

*10/01/27**MF 10-1-26*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Page 1

19

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2594-3		Manufactured	No		230	Each	362.0000	8.0000			
O-Ring, 205 Skidtube											

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

FP

27

51613

27

Main Warehouse

ST

335

52562 ✓

335

D2744

Manufactured No

110

Each

60.0000

1.0000



Cap

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

60

44892

1

47488

23

51922

36

8 BL 10-01-20.

1 10/1/16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Buy Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2600-3-BENT		Manufactured	No			110	Each	16.0000	1.0000			
												
Extrusion Bent												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
LG	5	
50675	5	
Main Warehouse		
ST	11	
43495	1	
47133	1	
52346	9	

1 11/01/10

D2743 Manufactured No



Crossbolt Spacer

160 Each 299.0000 8.0000



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
LG	94	
50281	50	
51913	44	
Main Warehouse		
ST	205	
44891	2	
45555	17	
48275	1	
52310	185	

8 BE 10/01/08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH



Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Itm	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2739  350 I Beam		Manufactured	No			160	Each	5.0000	1.0000 		MB 10-01-07 ✓	

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST 5
47124 1
53900 4

D3490-3

Manufactured No



Cross Bolt Spacer

160 Each 37.0000 4.0000


Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST 37
45560 1
48276 31
51930 5

3 1 BE 10/01/08

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH


Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC


Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty	Pick	Qty Issued	Date Issued	Status
D3490-1  Cross Bolt Spacer		Manufactured	No		160	Each	84.0000	4.0000				


Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	84	
45338	2	
47657	22	
48277	20	
51932	40	

4 22 10/01/08

ALS4-1032-225  Insert	Purchased	No			220	Each	6,691.000	38.0000				
--	-----------	----	--	--	-----	------	-----------	---------	--	--	--	--

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	6691	
107441	16	
110768 ✓	6675	

38 BR 10-01-20.

D3492-041  Plug Assembly	Manufactured	No			230	Each	76.0000	8.0000				
---	--------------	----	--	--	-----	------	---------	--------	--	--	--	--

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	76	
51584 ✓	76	

8 BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty Pick	Qty Issued	Date Issued	Status
D3793-3		Manufactured	No		230	Each	16.0000	1.0000			

Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	16	
51592	12	
51903 ✓	4	

BR 10-01-20.

AN8C35A

Purchased

No

230

Each

137.0000

1.0000



BOLT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	137	
102180	1	
106896	1	
110105	48	
110847 ✓	87	

BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty to Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3793-1 Manufactured No

230

Each

19.0000

1.0000



Wearshoe

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

19

40551

1

51597

16

51906 ✓

2

D3488-041 Manufactured No

230

Each

14.0000

1.0000



Blade Fitting Assembly, LH

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

14

47348 ✓

14

1 BR 10-01-00.

1 BR 10-01-00.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3794-3		Manufactured	No			230	Each	21.0000	1.0000			

Gasket

Warehouse	Loc Qty	Loc Code
<u>Location</u>		
Main Warehouse		
FP	18	
51598 ✓	6	
51907	12	
Main Warehouse		
ST	3	
46531	2	
47440	1	

1 Bk 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN6C44A 		Purchased	No			230	Each	148.0000	4.0000			
BOLT												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	2	
103964	2	
Main Warehouse		
ST	146	
110105	4	
110155	14	
110665	1	
111605	50	
111649	50	
112720	9	
113121 ✓	18	

4 BR 10-01-20.

MS21083C8

Purchased

No

230

Each

53.0000

1.0000



NUT

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	53	
110584	5	
111424	2	
112492 ✓	6	
113149	40	

1 BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3536-25		Manufactured	No			230	Each	40.0000	1.0000			
Gasket												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP10 35

51607 ✓ 9

54479 26

Main Warehouse

ST 5

45569 1

47011 2

47526 2

D3631-1

Manufactured No

230

Each

442.0000

8.0000



Washer

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST 442

52693 ✓ 142

54388 300

1 BR 10-01-20

8 BR 10-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3791-1		Manufactured	No			230	Each	11.0000	1.0000			

Wearplate

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

7

51610 ✓

7

Main Warehouse

ST

4

51909

4

AN960C10L

Purchased

No

230

Each

416.0000

38.0000

washer

Warehouse

Loc Qty

Loc Code

Location

OFFSHORE

FG

100

103585

100

Main Warehouse

ST

316

112116

156

112612

160

NA51149C0332R

113288

88 BL 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg Part	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	-------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D2745		Manufactured	No			230	Each	346.0000	8.0000			
-------	--	--------------	----	--	--	-----	------	----------	--------	--	--	--



Bushing

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 59

34817 2

36230 8

37303 1

39587 2

40726 2

41114 2

42778 6

43754 2

44893 33

45556 1

Main Warehouse

ST46 287

51537 70

51910 36

52311 181

8 BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3CSA  Bolt		Purchased	No		230	Each	609.0000	34.0000			

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

111424

111707

112314

113121

113149

609

8

69

1

231

300

32. Bk 10-01-20.
2 Bk 10-01-20

D3537-1

Manufactured

No

230

Each

141.0000

3.0000

Wearpad

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

FP

48288

Main Warehouse

FP17

51678 ✓

51679

2

2

139

34

105

3 Bk 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010


Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C816L  WASHER		Purchased	No			230	Each	240.0000	1.0000			

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST 110372	240	
104093	2	
107520	4	
110139	29	
110584	100	
111424	105	

1 BR 10-01-20.

D3492-043  Plug Assembly		Manufactured	No			230	Each	143.0000	8.0000			
---	--	--------------	----	--	--	-----	------	----------	--------	--	--	--

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	123	
54682	123	
Main Warehouse		
ST	20	
52309 ✓	20	

8 BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C6A 		Purchased	No			230	Each	828.0000	4.0000			
BOLT												

Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST

828

111982 ✓

828

230

Each

74.0000

8.0000

4 BR 10-01-20.

MS 28775-013
NAS1611-013

Purchased

No



O-RING

Warehouse

Location

Loc Qty

Loc Code

Main Warehouse

* ST 101029

74

106513

11

111424

20

111758 ✓

43

8 BR 10-01-20.

3 BR 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replace Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	-----------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D3535-25		Manufactured	No			230	Each	15.0000	1.0000			
----------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Wearshoe

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 7

51927 ✓ 7

Main Warehouse

ST 8

52589 8

D3794-1		Manufactured	No			230	Each	15.0000	1.0000			
---------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP 12

51928 ✓ 12

Main Warehouse

ST 3

46530 1

47212 2

1 *DL* 10-01-20.

1 *DL* 10-01-20.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951



Parent Item: D350-636-011



Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

MS21043-6		Purchased	No			230	Each	1,000.000	4.0000			
-----------	--	-----------	----	--	--	-----	------	-----------	--------	--	--	--



NUT

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 1000

111424 ✓ 8

112314 992

D3493-1		Manufactured	No			260	Each	55.0000	2.0000			
---------	--	--------------	----	--	--	-----	------	---------	--------	--	--	--



Washer



Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST 55

44902 2

47710 53

4 BR 10-01-20.

10-1-22 sf

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH


Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21083C8		Purchased	No			260	Each	53.0000	2.0000			
												
NUT												

10-1-22 SP

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	53	
110584	5	
111424	2	
112492	6	
113149	40	

AN8C21A

Purchased

No

260

Each

148.0000

2.0000

BOLT

10-1-22 SP

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	148	
105160	1	
107596	1	
107924	2	
109092	2	
110341	2	
110342	2	
111605	50	
112720	38	
113558	50	

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Start Date: 05/01/2010

Required Date: 18/01/2010

Comments: IPP Rev P: as per ECN9490 DD 09.12.09 verified by:EC

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C816L WASHER		Purchased	No			260	Each	240.0000	2.0000		10-1-2010	

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	240	
104093	2	
107520	4	
110139	29	
110584	100	
111424	105	

D3672-1 Manufactured No

Phenolic Washer

230 Each 1,744.000 4.0000

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	1244	
39275	19	
42329	5	
47628	220	
52505	1000	
Main Warehouse		
ST117	500	
51674	500	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

January 5, 2010 10:43:27 AM

Work Order ID: 54951

Parent Item: D350-636-011

Parent Item Name: Skidtube LH

Comments: IPP RevP: as per ECN9490 DD 09.12.09 verified by:EC

Start Date: 05/01/2010

Required Date: 18/01/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2741 Blade, 350 Skidtube		Manufactured	No			260	Each	45.0000	1.0000		10-1-22	SP

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	45	
45320	1	
47113	4	
51931	40	

D3532-1 Spacer		Manufactured	No			260	Each	80.0000	2.0000		10-1-22	SP
-------------------	--	--------------	----	--	--	-----	------	---------	--------	--	---------	----

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	80	
44904	2	
52321	78	

D3672-13 Phenolic Washer		Purchased	No			260	Each	948.0000	2.0000		10-1-22	SP
-----------------------------	--	-----------	----	--	--	-----	------	----------	--------	--	---------	----

Warehouse	Loc Qty	Loc Code
Location		
Main Warehouse		
ST	948	
54363	948	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1			D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3535-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, NELS-1032-225)
34	34	34	34	AN3C54	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN6C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21983C6	NUT
4	4	4	4	NAS1515H3L	WASHER

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 54951
RM 10-1-05

RELEASED
6-27-14

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/25 (ZN C8-1); D3794-1/3 REPLACES D3535-13/25 (ZN B8-1); ADD D3751-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (S FL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN AS-1); REASON REF. NCR 06-043	PH	06.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H2L; REMOVE D3741; QTY (2) AN960C816; REMOVE QTY (2) MS21983C6	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DED 9135B157	PH	06.01.25
C	ADD D2758-3/D2759-4; INCORPORATE D2738 AND D2740	CP	06.11.18
G	CHANGE MS24594-5/555 TO ANS-16A	CP	06.09.01
A	NEW ISSUE	DS	09.04.16
REV	DESCRIPTION	BY	DATE
DESIGN	PC		
DRAWN	PC		
CHECKED	PC		
MFG APPR.	PC		
APPROVED	PC		
DE APPR.	PC		
DATE	06.07.16		
DART AEROSPACE USA, INC. PORT HADLOCK, OH DRAWING NO. D2750 TITLE 350 SKIDTUBE ASSEMBLY SHEET 1 OF 11 SCALE NTS COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND CONFIDENTIALITY IS SUPPLIED BY THE SUPPLIER. CLASSIFICATION THAT IS APPLIED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON OR ENTITY WITHOUT PERMISSION FROM DART AEROSPACE USA, INC.			

GENERAL NOTES:

MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).

FINISH:

ACID ETCH, ALONG ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.

POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3

BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).

TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

UNITS: INCHES UNLESS OTHERWISE NOTED

BREAK SHARP EDGES: N/A

IDENTIFICATION: N/A

WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS

WELD PER DART QSI 004

INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL "F" SIZE HOLES (Ø0.297) FOR WEARSHOE INSERTS

FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:

MINIMUM YIELD TENSILE STRENGTH = 35 KSI

MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI

1) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.

COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCOYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF

POWDER COATING WITH MEK DEGREASER.

2) SPACER AND PLUG INSTALLED SAME AS SECTION A1-A1 EXCEPT HORIZONTAL

3) SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

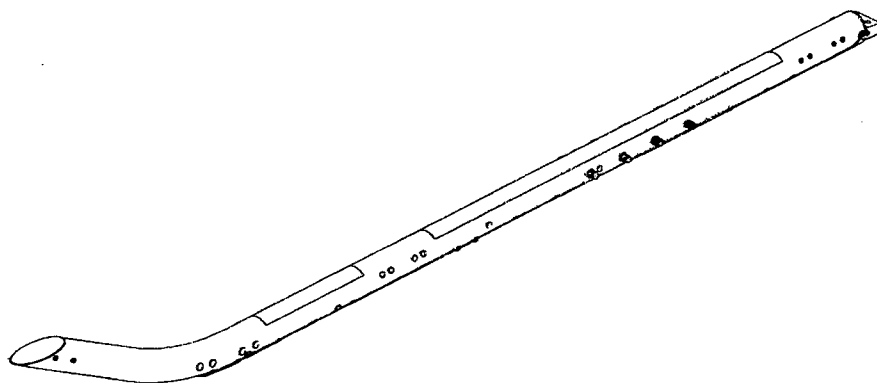
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

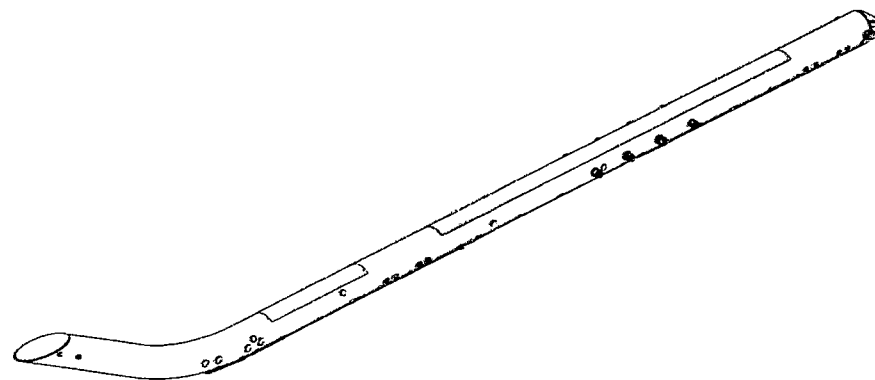
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2750-041 350 SKIDTUBE ASSEMBLY, LH



D2750-042 350 SKIDTUBE ASSEMBLY, RH

RELEASED
08-07-16

W/D 54951

DESIGN	PE	DART AEROSPACE USA, INC.	
DRAWN	ME	PORT HADLOCK, WA	
CHECKED	ME	DRAWING NO. D2750	REV. F
MFG. APPR.	ME	SHEET 2 OF 11	
APPROVED	ME	TITLE 350 SKIDTUBE ASSEMBLY	SCALE
DE APPR.	ME	NTS	
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

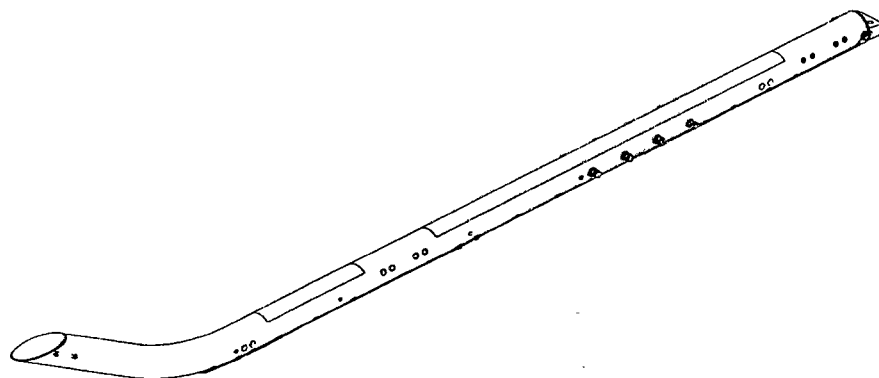
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

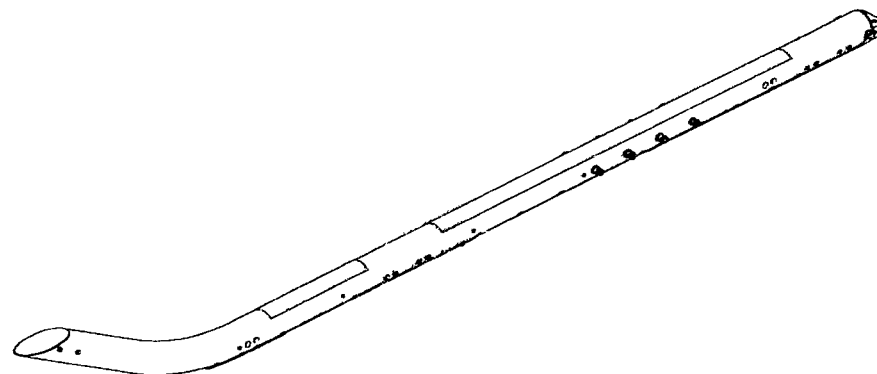
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D2750-043 350 SKIDTUBE ASSEMBLY, LH



D2750-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED
68-09 221M

W/0 54951

DESIGN	PD	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWN	PD		
CHECKED	JA	DRAWING NO.	REV. F
MFG. APPR.	JA	D2750	SHEET 3 OF 11
APPROVED	JA	TITLE	SCALE
DE APPR.	JA	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

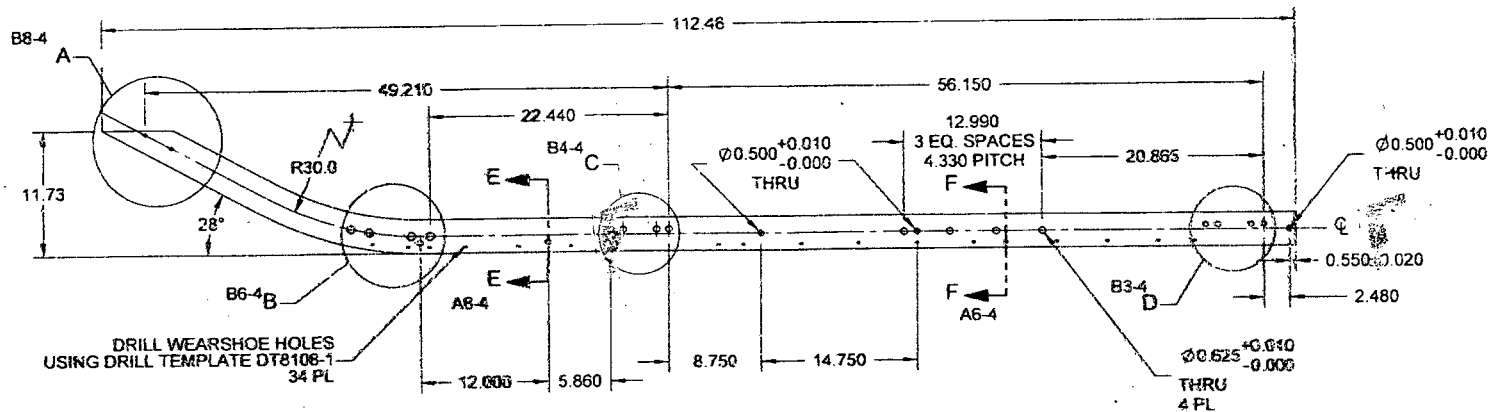
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

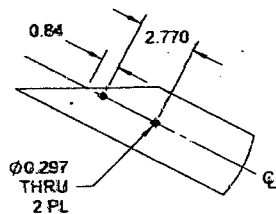
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

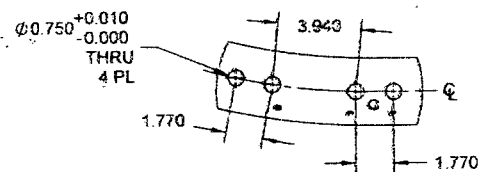
NOTE: Date & initial all entries



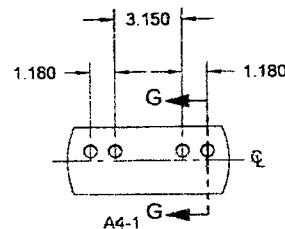
D2750-1 LH SKIDTUBE



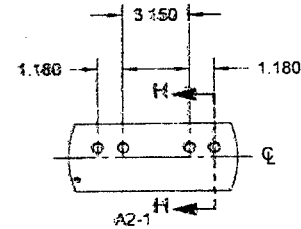
DETAIL A
SCALE 2X



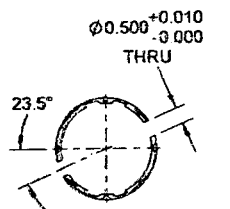
DETAIL B
SCALE 2X



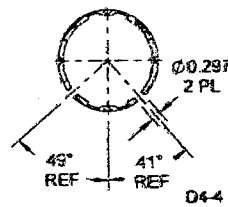
DETAIL C
SCALE 2X



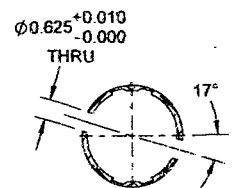
DETAIL D
SCALE 2X



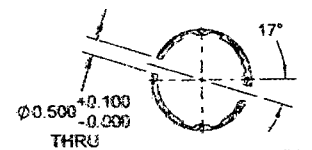
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

DESIGN	PM	DART AEROSPACE USA, INC.	
DRAWN	PM	PORT HADLOCK, WA	
CHECKED		DRAWING NO. D2750	REV. F
MFG. APPR.			SHEET 4 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

RELEASED

W/0 54951

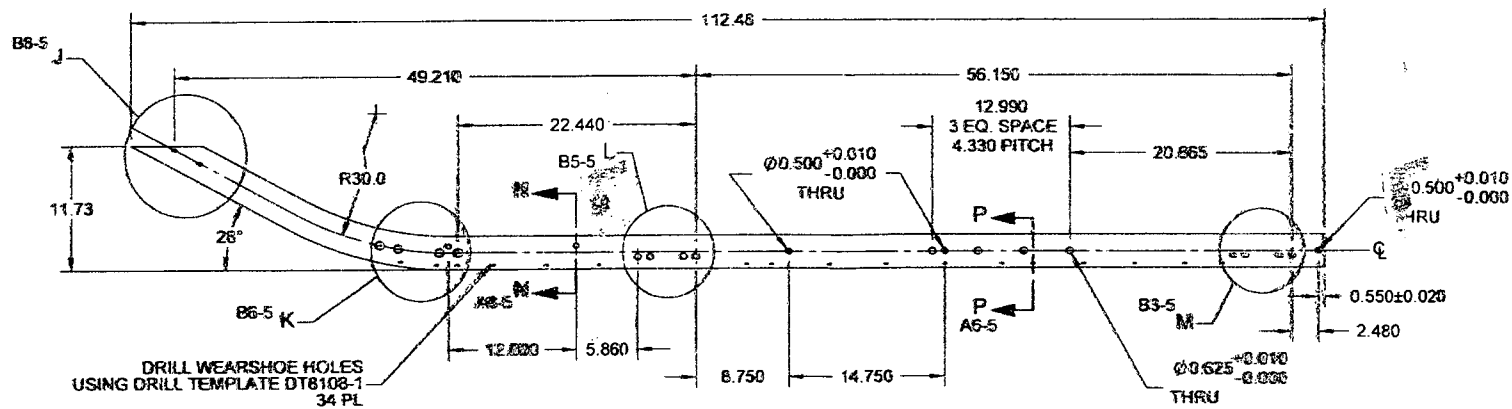
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

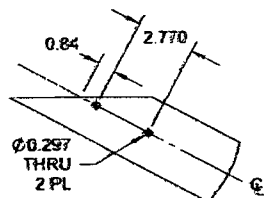
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

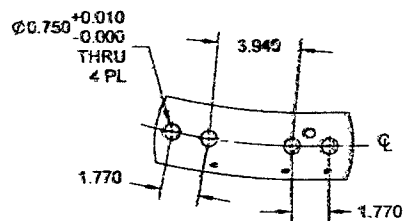
NOTE: Date & initial all entries



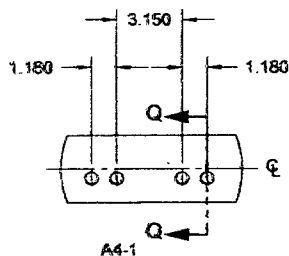
D2750-2 RH SKIDTUBE



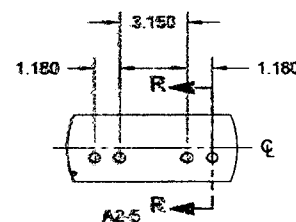
DETAIL J
SCALE 2X



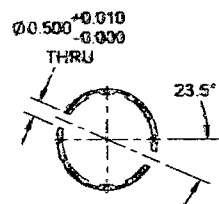
DETAIL K
SCALE 2X



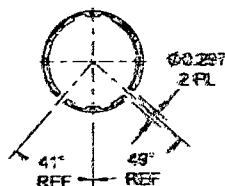
DETAIL L
SCALE 2X



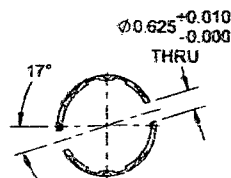
DETAIL M
SCALE 2X



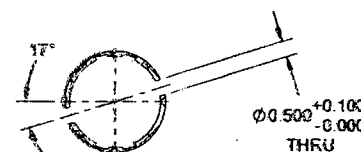
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

W/054951
RELEASED
08-22-16

DESIGN	REV	DART AEROSPACE USA, INC.	
DRAWN	REV	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 5 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	<small>COPYRIGHT © 1996 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRELIMINARY AND CONFIDENTIAL. NO PART OF THIS DOCUMENT IS TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	

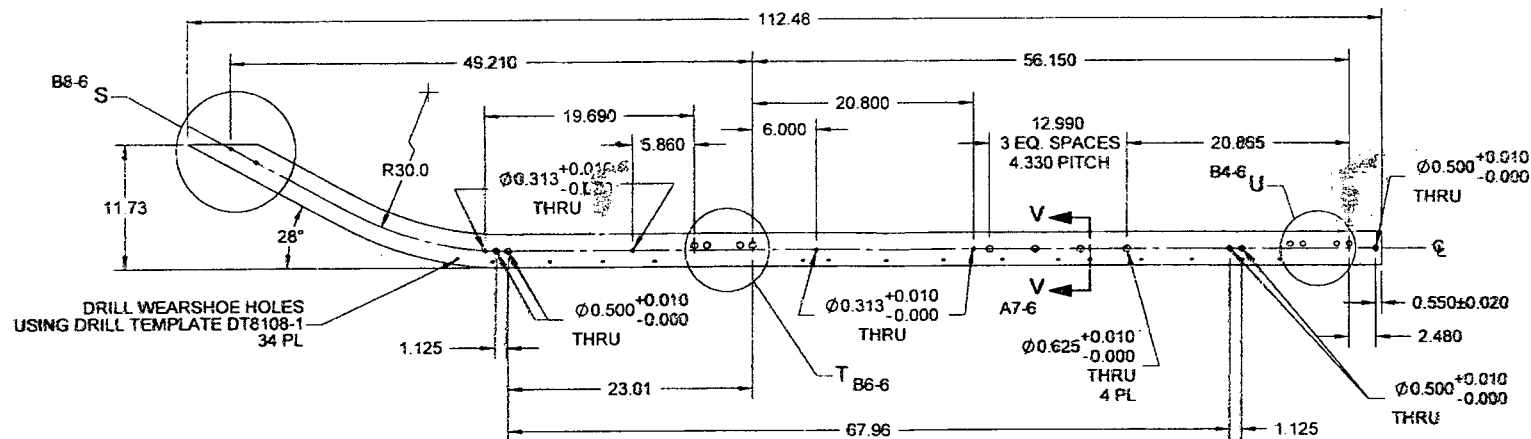
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

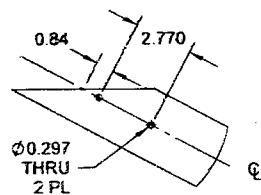
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

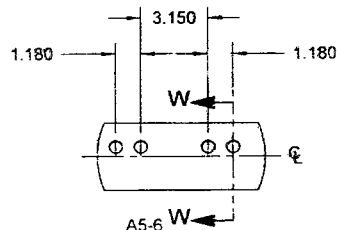
NOTE: Date & initial all entries



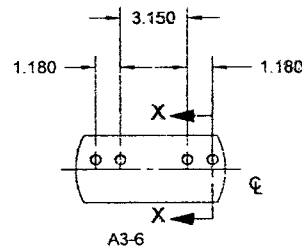
D2750-3 LH SKIDTUBE



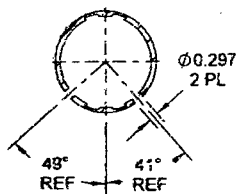
DETAIL S
SCALE 2X



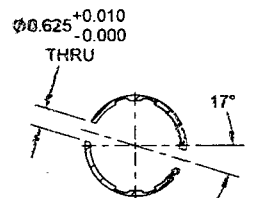
DETAIL T
SCALE 2X



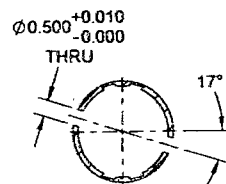
DETAIL U
SCALE 2X



SECTION V-V
SCALE 3X, 17 PL



SECTION W-W
SCALE 3X, 4 PL



SECTION X-X
SCALE 3X, 4 PL

RELEASED
05 21 11

W/0 54951

DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO. D2750	REV. F
MFG. APPR.		TITLE 350 SKIDTUBE ASSEMBLY	SHEET 6 OF 11
APPROVED		SCALE NTS	
DE APPR.			
DATE	08.07.16		

COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT
WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

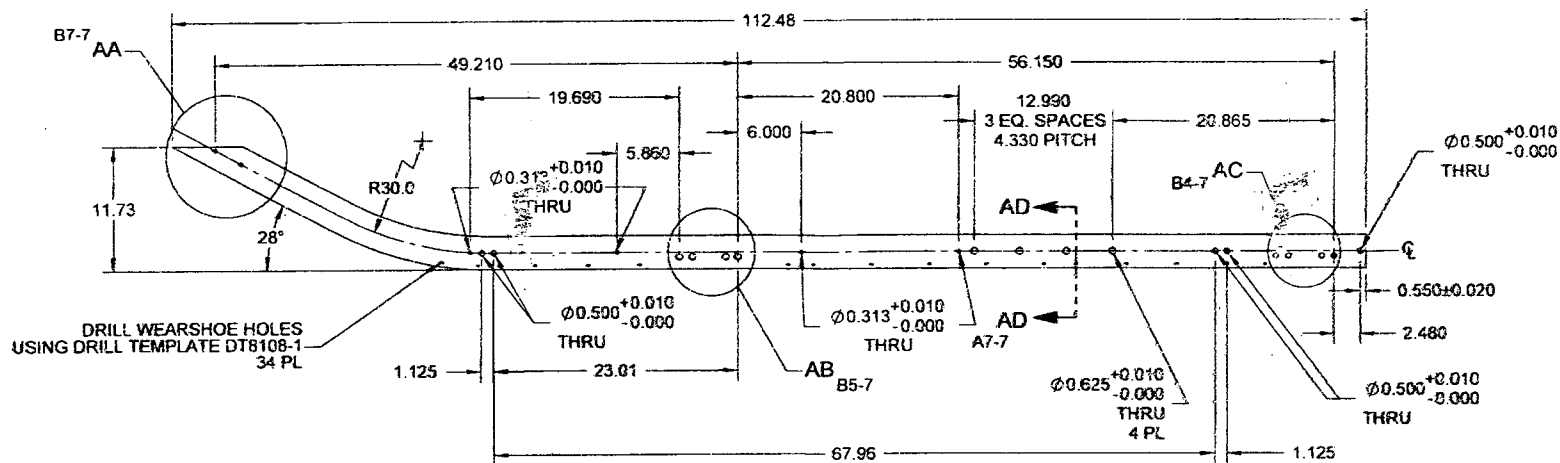
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

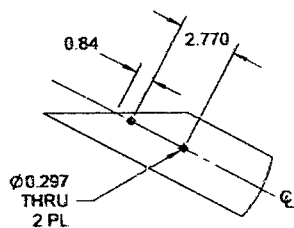
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

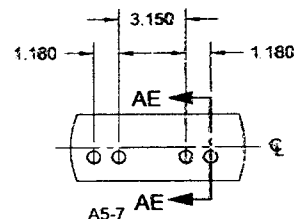
NOTE: Date & initial all entries



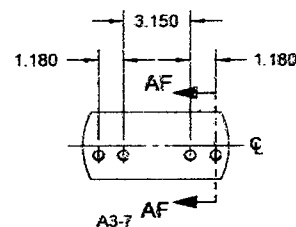
D2750-4 RH SKIDTUBE



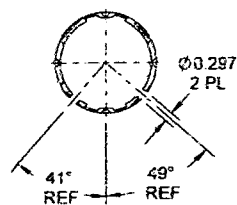
DETAIL AA
SCALE 2X



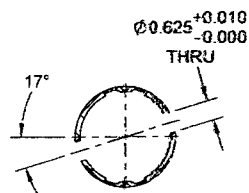
DETAIL AB
SCALE 2X



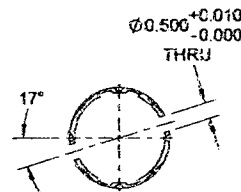
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

RELEASED
08-09-16

W10 54951

DESIGN	AS	DART AEROSPACE USA, INC.	
DRAWN	AS	PORT HADLOCK, WA	
CHECKED	AS	DRAWING NO. D2750	REV. F
MFG. APPR.	AS	SHEET 7 OF 11	
APPROVED	AS	TITLE	SCALE
DE APPR.	AS	350 SKIDTUBE ASSEMBLY	
DATE	08.07.16	NTS	

COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

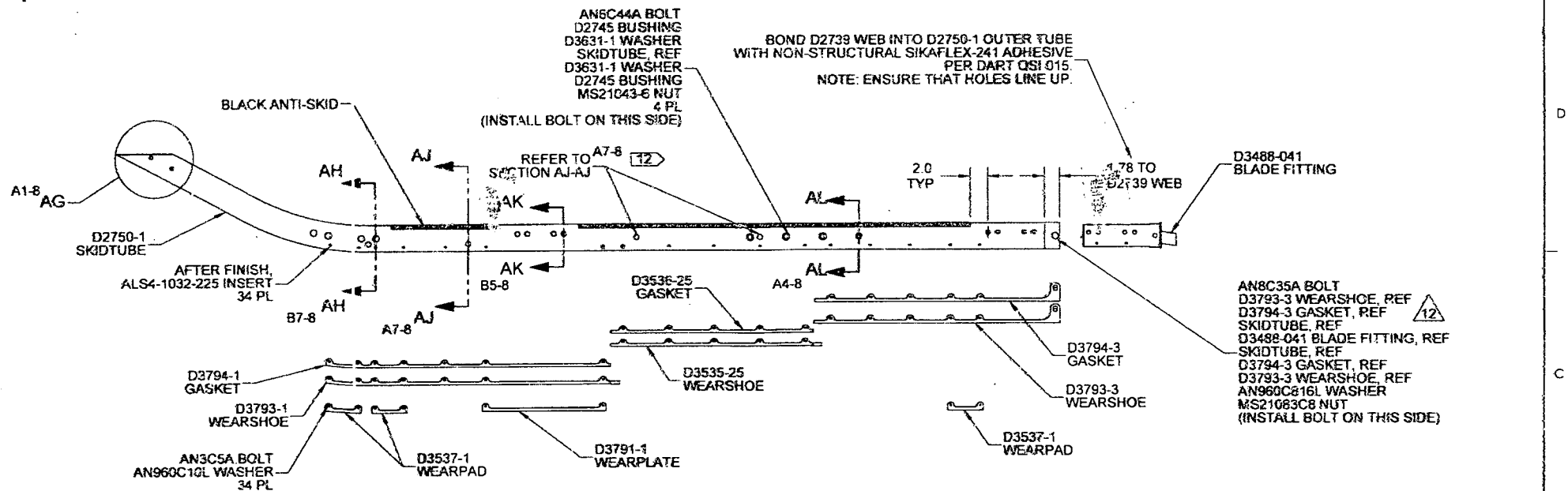
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

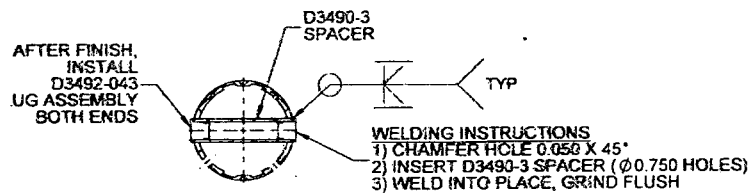
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

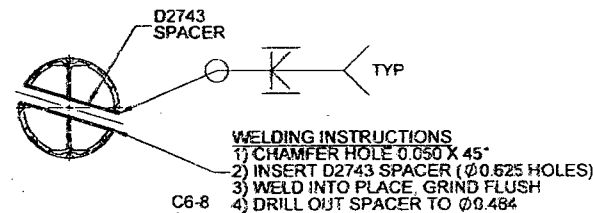
NOTE: Date & initial all entries



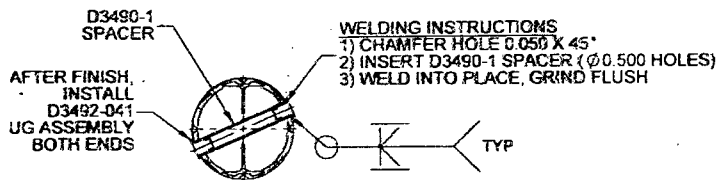
D2750-041 350 SKIDTUBE ASSEMBLY, LH



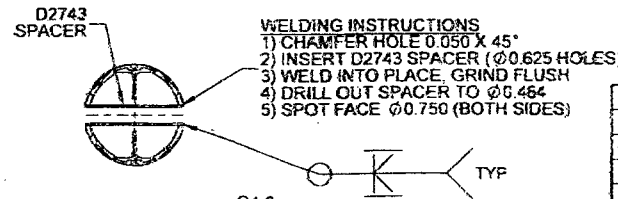
SECTION AH-AH SCALE 3X, 4 PL



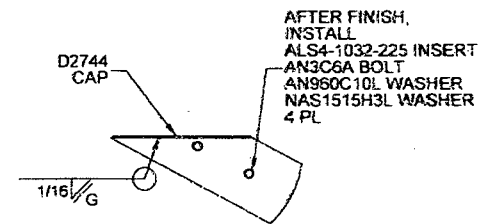
SECTION AK-AK SCALE 3X, 4 PL



SECTION AJ-AJ SCALE 3X, 4 PL



SECTION AL-AL SCALE 3X, 4 PL (HARDWARE REMOVED FOR CLARITY)



DETAIL AG
SCALE 2X

D8-B
RELEASED

DESIGN	BY	DART AEROSPACE USA, INC.	
DRAWN	BY	PORT HADLOCK, WA	
CHECKED	BY	DRAWING NO.	REV. F
MFG. APPR.	BY	D2750	SHEET 8 OF 11
APPROVED	BY	TITLE	SCALE
DE APPR.	BY	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.	

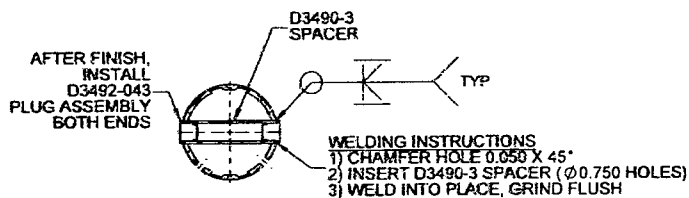
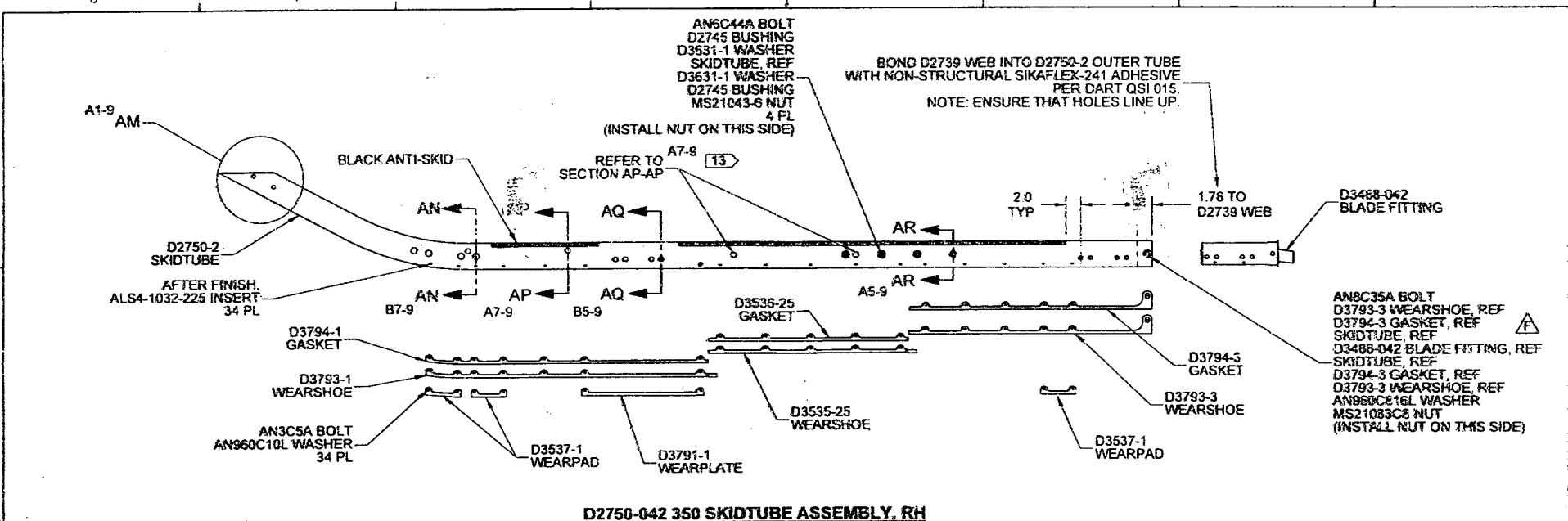
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

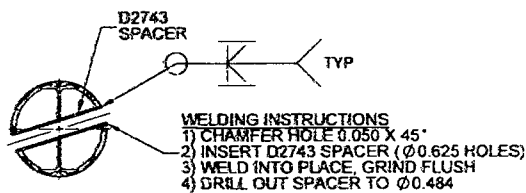
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

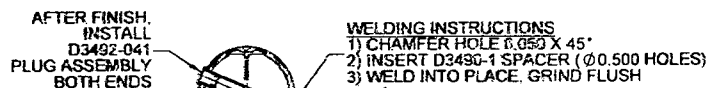
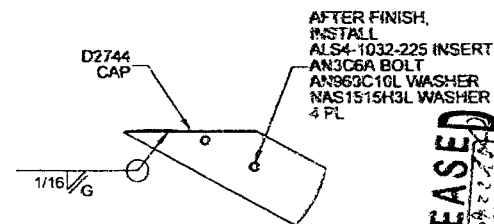
NOTE: Date & initial all entries



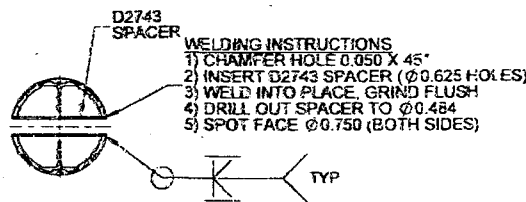
SECTION AN-AN
SCALE 3X, 4 PL



SECTION AQ-AQ
SCALE 3X, 4 PL



SECTION AP-AP
SCALE 3X, 4 PL



SECTION AR-AR
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)

DESIGN	W/O
DRAWN	54951
CHECKED	
MFG. APPR.	
APPROVED	
DE APPR.	
DATE	08.07.16

DETAIL AM
SCALE 2X

DART AEROSPACE USA, INC.
PORT HADLOCK, WA

DRAWING NO. D2750
TITLE 350 SKIDTUBE ASSEMBLY
REV. F
SHEET 8 OF 11
SCALE NTS

COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE. IT IS SUPPLIED ON THE BASIS OF CONFIDENTIALITY. IT IS NOT TO BE USED FOR ANY PURPOSES OR TO REPRODUCE OR TRANSMIT IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE USA, INC.

RELEASED
2008-07-16

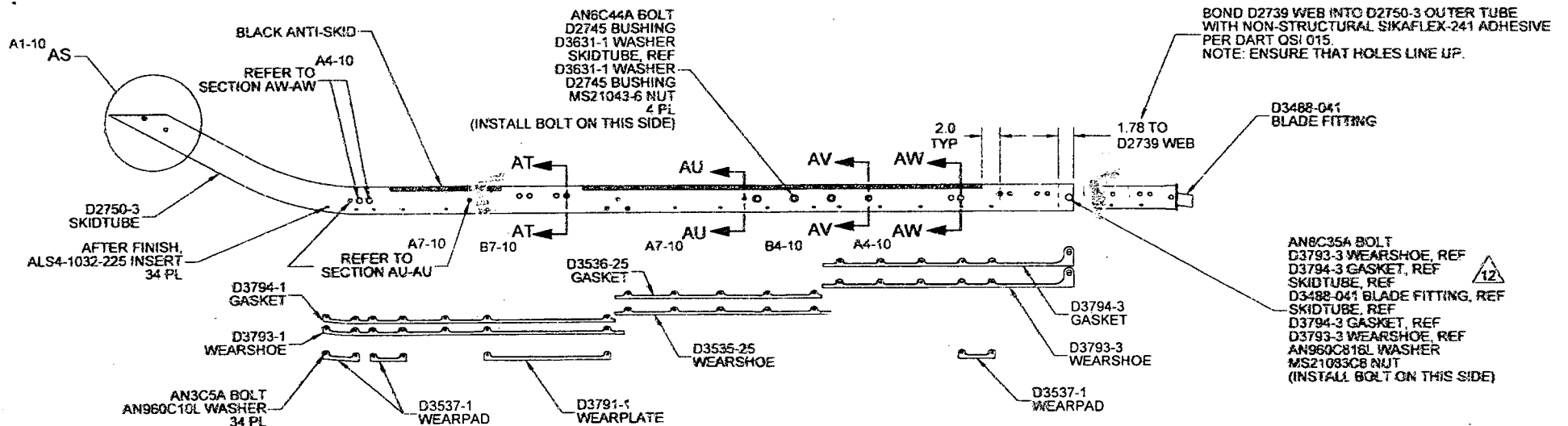
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

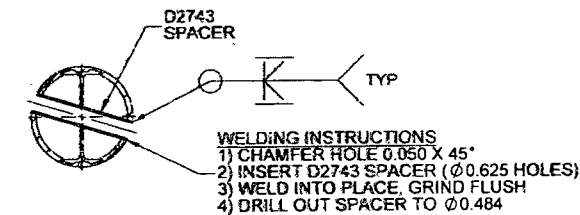
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

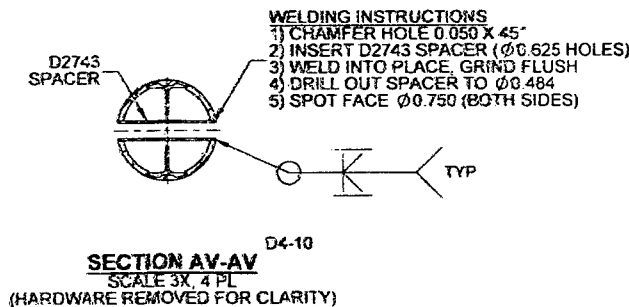
NOTE: Date & initial all entries



D2750-043 350 SKIDTUBE ASSEMBLY, LH

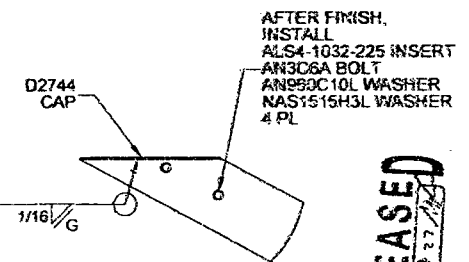


SECTION AT-AT
SCALE 3X, 4 PL



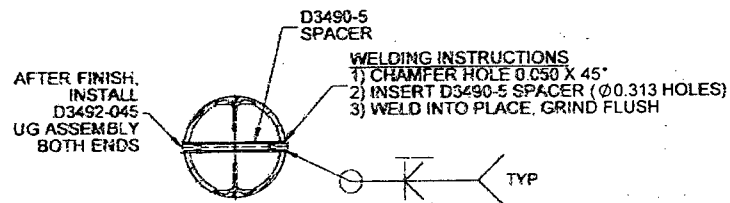
SECTION AV-AV
SCALE 3X, 4 PL

(HARDWARE REMOVED FOR CLARITY)

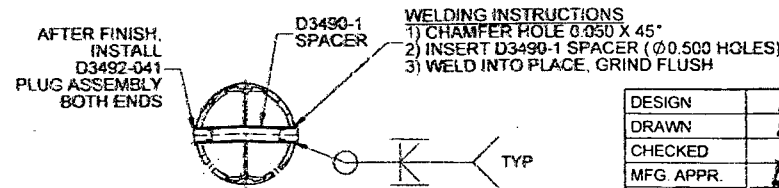


DETAIL AS
SCALE 2X

RELEASED
08-07-16



SECTION AU-AU
SCALE 3X, 4 PL



SECTION AW-AW
SCALE 3X, 4 PL

DESIGN	AW	DART AEROSPACE USA, INC.	
DRAWN	AW	PORT HADLOCK, WA	
CHECKED	AW	DRAWING NO.	REV. F
MFG APPR.	AW	D2750	SHEET 10 OF 11
APPROVED	AW	TITLE	SCALE
DE APPR.	AW	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1999 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PREPARED BY DART AEROSPACE USA, INC. FOR THE EXPRESS CONDITION THAT IT IS NOT TO BE USED OR REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE USA, INC.	

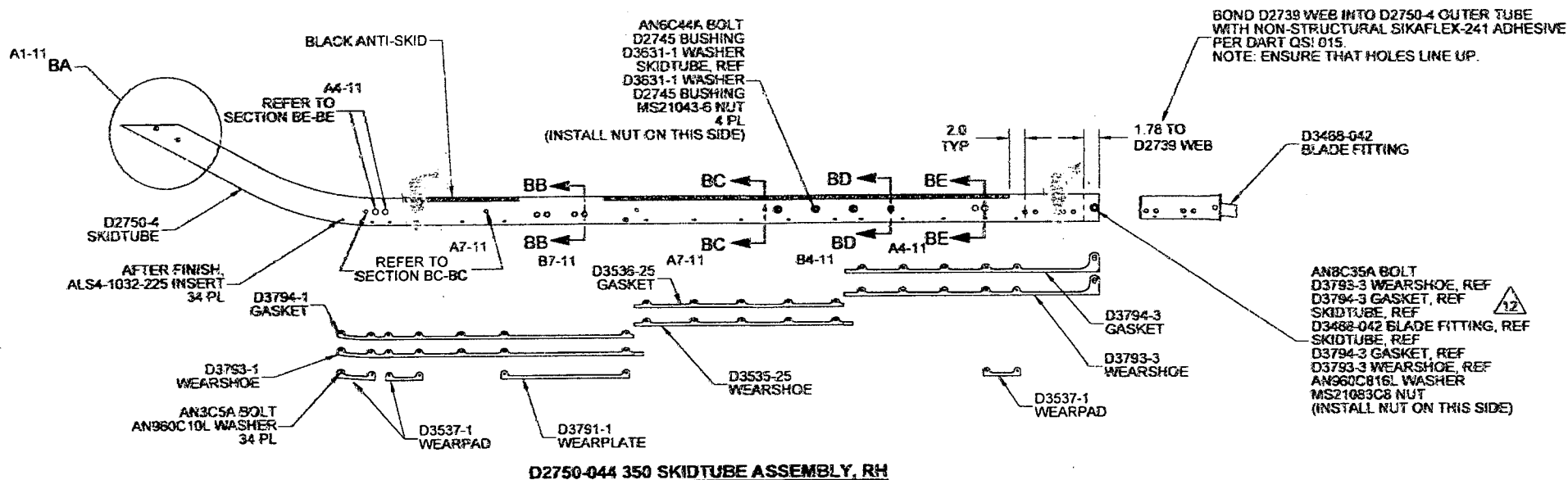
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

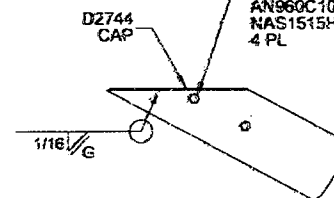
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

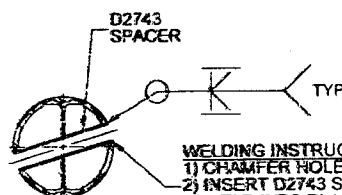


RELEASED
 06-10-22 / 11/10

AFTER FINISH,
 INSTALL
 ALS4-1032-225 (INSERT
 AN3C6A BOLT
 AN960C10L WASHER
 NAS1515H3L WASHER
 4 PL

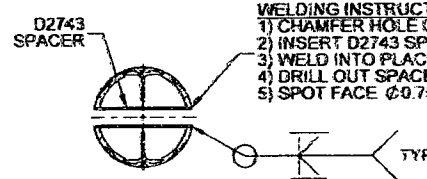


DETAIL BA
 SCALE 2X
 54951



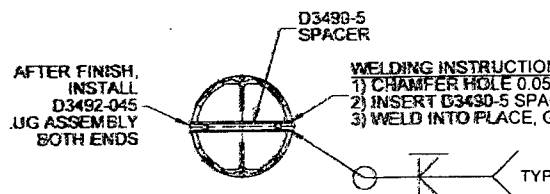
WELDING INSTRUCTIONS
 1) CHAMFER HOLE 0.050 X 45°
 2) INSERT D2743 SPACER (Ø0.625 HOLES)
 3) WELD INTO PLACE, GRIND FLUSH
 4) DRILL OUT SPACER TO Ø0.484

SECTION BB-BB
 SCALE 3X, 4 PL



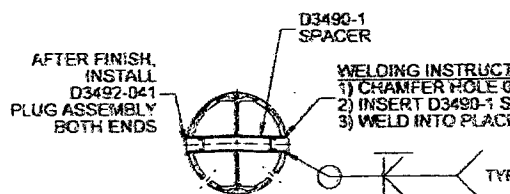
WELDING INSTRUCTIONS
 1) CHAMFER HOLE 0.050 X 45°
 2) INSERT D2743 SPACER (Ø0.625 HOLES)
 3) WELD INTO PLACE, GRIND FLUSH
 4) DRILL OUT SPACER TO Ø0.484
 5) SPOT FACE Ø0.750 (BOTH SIDES)

SECTION BD-BD
 SCALE 3X, 4 PL
 (HARDWARE REMOVED FOR CLARITY)



WELDING INSTRUCTIONS
 1) CHAMFER HOLE 0.050 X 45°
 2) INSERT D3490-5 SPACER (Ø0.313 HOLES)
 3) WELD INTO PLACE, GRIND FLUSH

SECTION BC-BC
 SCALE 3X, 4 PL



WELDING INSTRUCTIONS
 1) CHAMFER HOLE 0.050 X 45°
 2) INSERT D3490-1 SPACER (Ø0.500 HOLES)
 3) WELD INTO PLACE, GRIND FLUSH

SECTION BE-BE
 SCALE 3X, 4 PL

DESIGN	WLO	DATE	08.07.16
DRAWN	WLO	DATE	08.07.16
CHECKED	WLO	DATE	08.07.16
MFG. APPR.	WLO	DATE	08.07.16
APPROVED	WLO	DATE	08.07.16
DE APPR.	WLO	DATE	08.07.16
DATE	08.07.16	DATE	08.07.16

DART AEROSPACE USA, INC.
 PORT HADLOCK, WA

DRAWING NO. **D2750**
 TITLE **350 SKIDTUBE ASSEMBLY**
 SCALE **MTS**

COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.
 THIS DRAWING IS PRIVATE AND CONFIDENTIAL. IT IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 222

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 54586
Part number: D350-636 012
Description: 350 skid tube
Welding Process: Tig[☒] Mig[]
Base materiel: Aluminium
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier [Signature] Date of Test Coupon 10.01.11

Welder Barclay Elliott Date of Test Coupon 10-01-11

The above named individual is qualified in accordance with AWS D17.1.2001 to weld